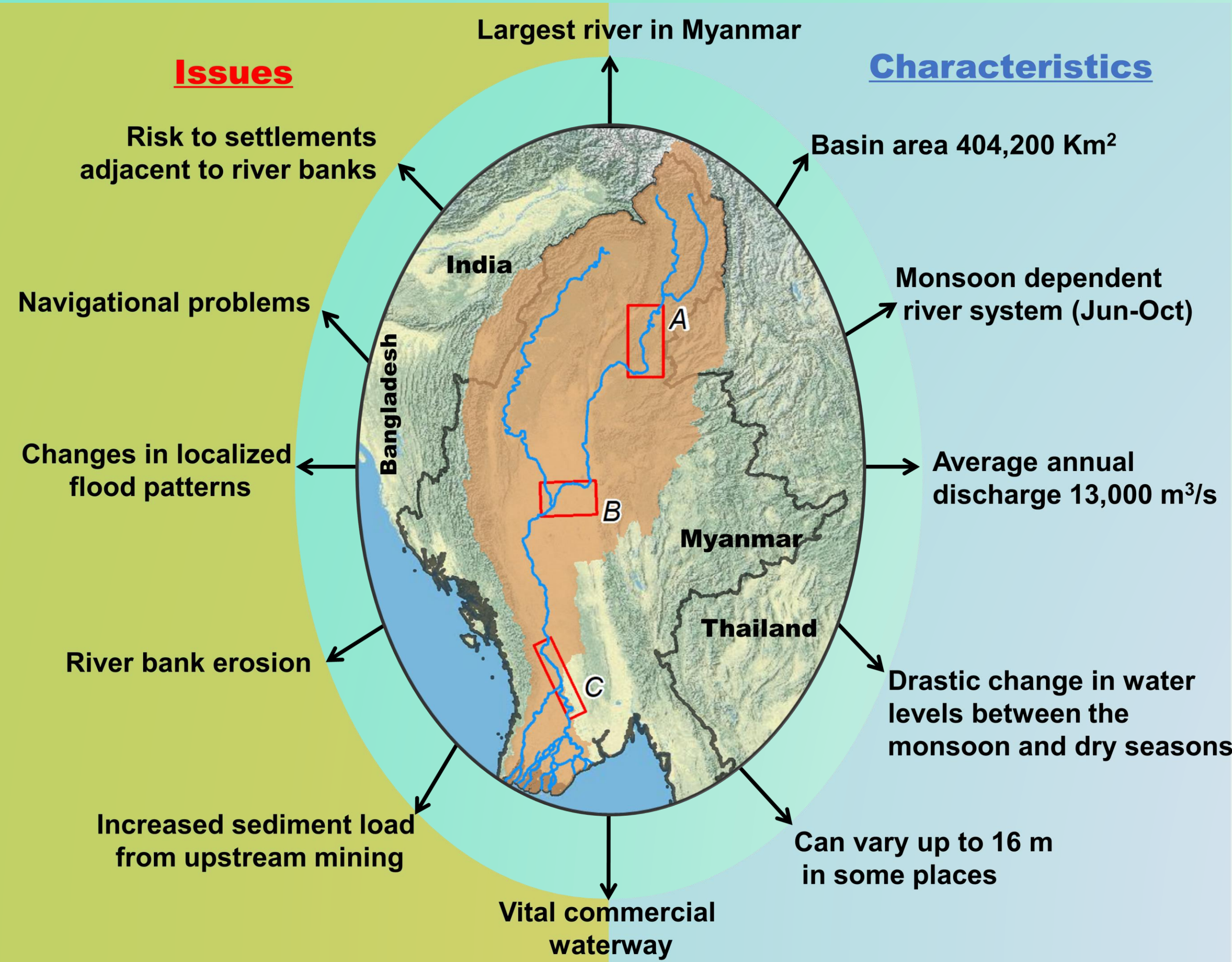




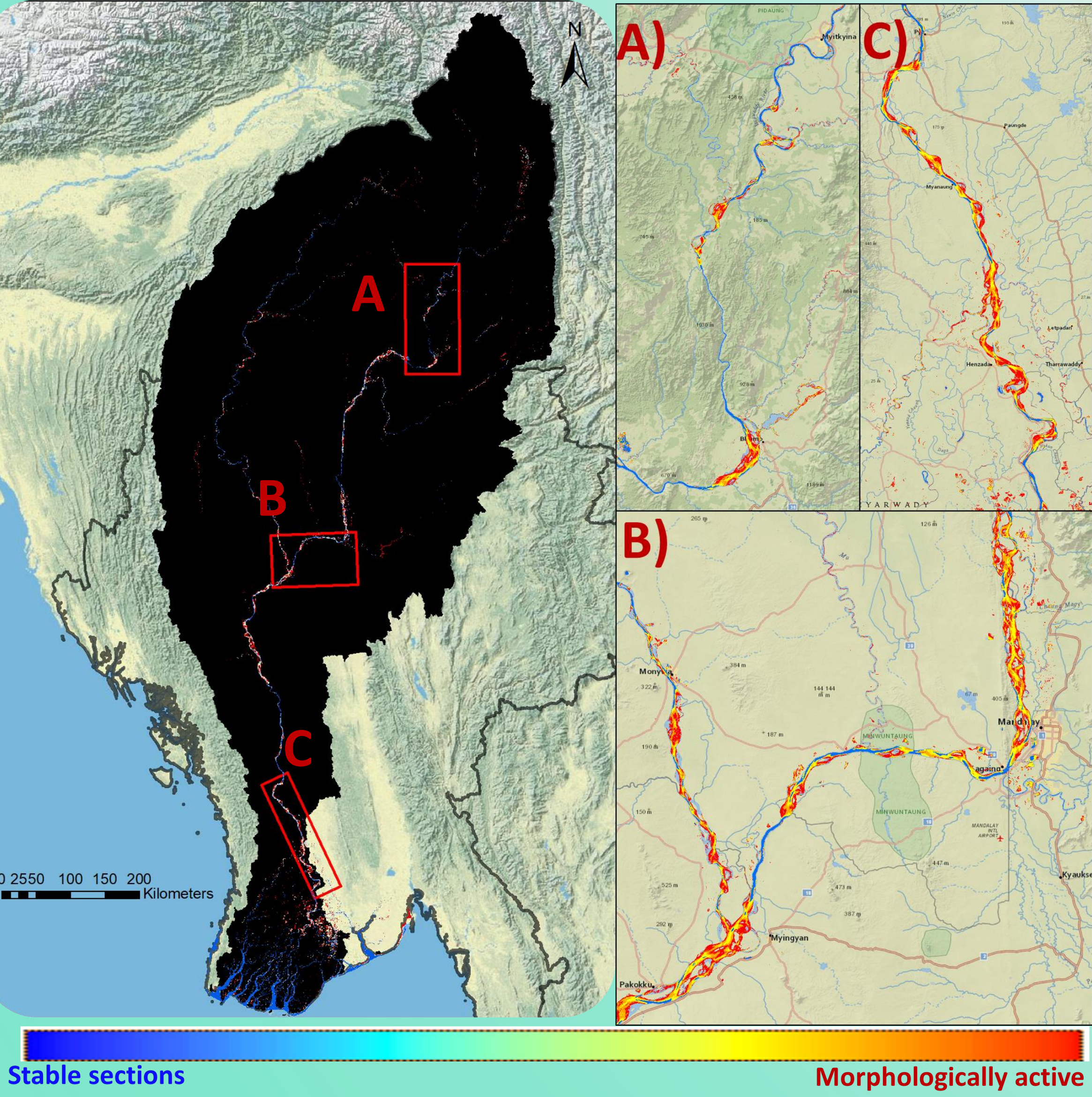
A Catchment Scale Geomorphological Change Monitoring and Warning System for Large Rivers in Southeast Asia

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(1) Stockholm Environment Institute (SEI), (2) Spatial Informatics Group (SIG), (3) Asian Institute of Technology (AIT), (4) Directorate of Water Resources and Improvement of River Systems (DWIR), Myanmar (5) Asian Disaster Preparedness Center (ADPC)

PILOT CATCHMENT : AYEYARWADY, MYANMAR

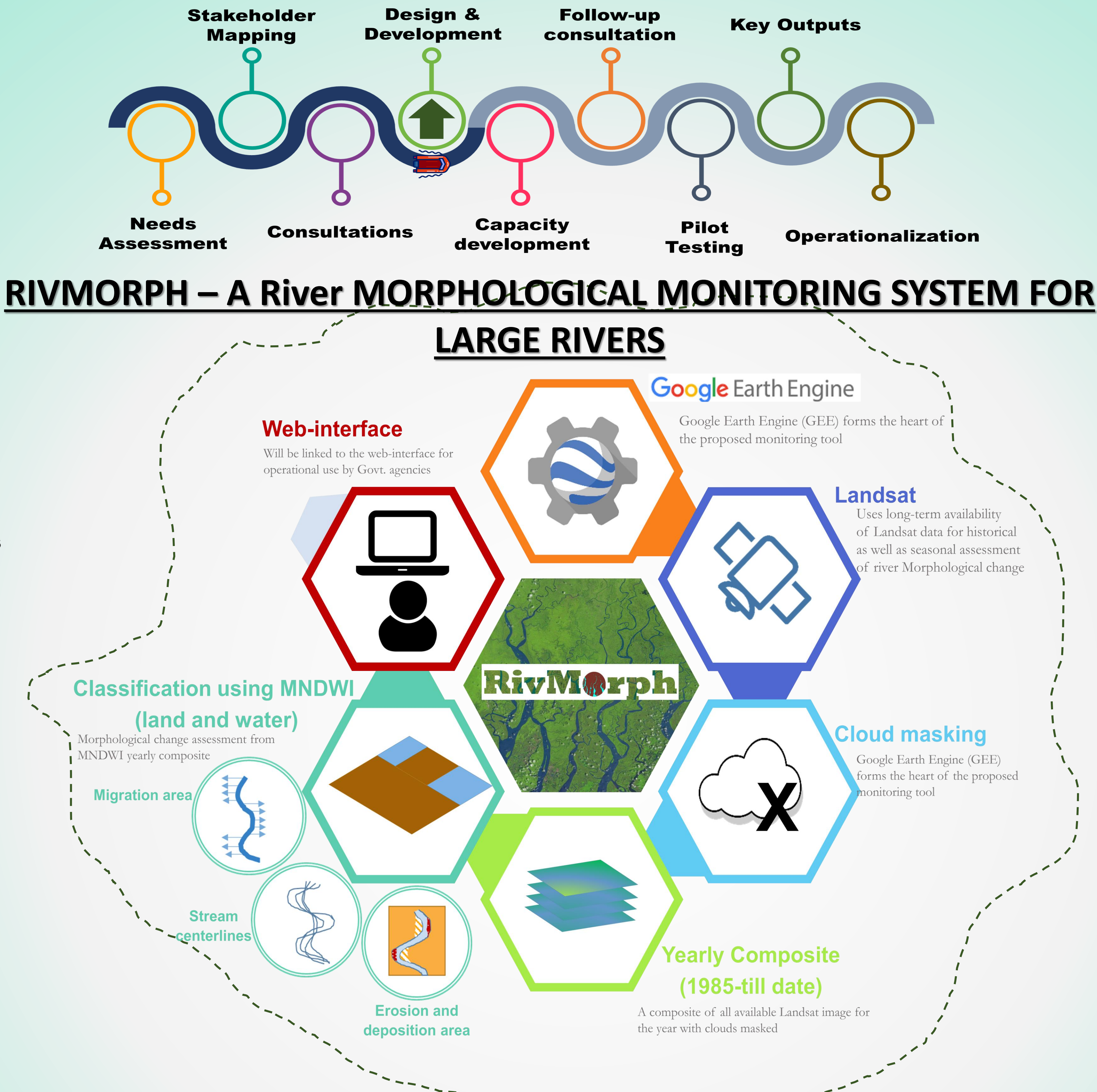


CATCHMENT SCALE RIVER MORPHOLOGICAL ASSESSMENT : HOTSPOTS

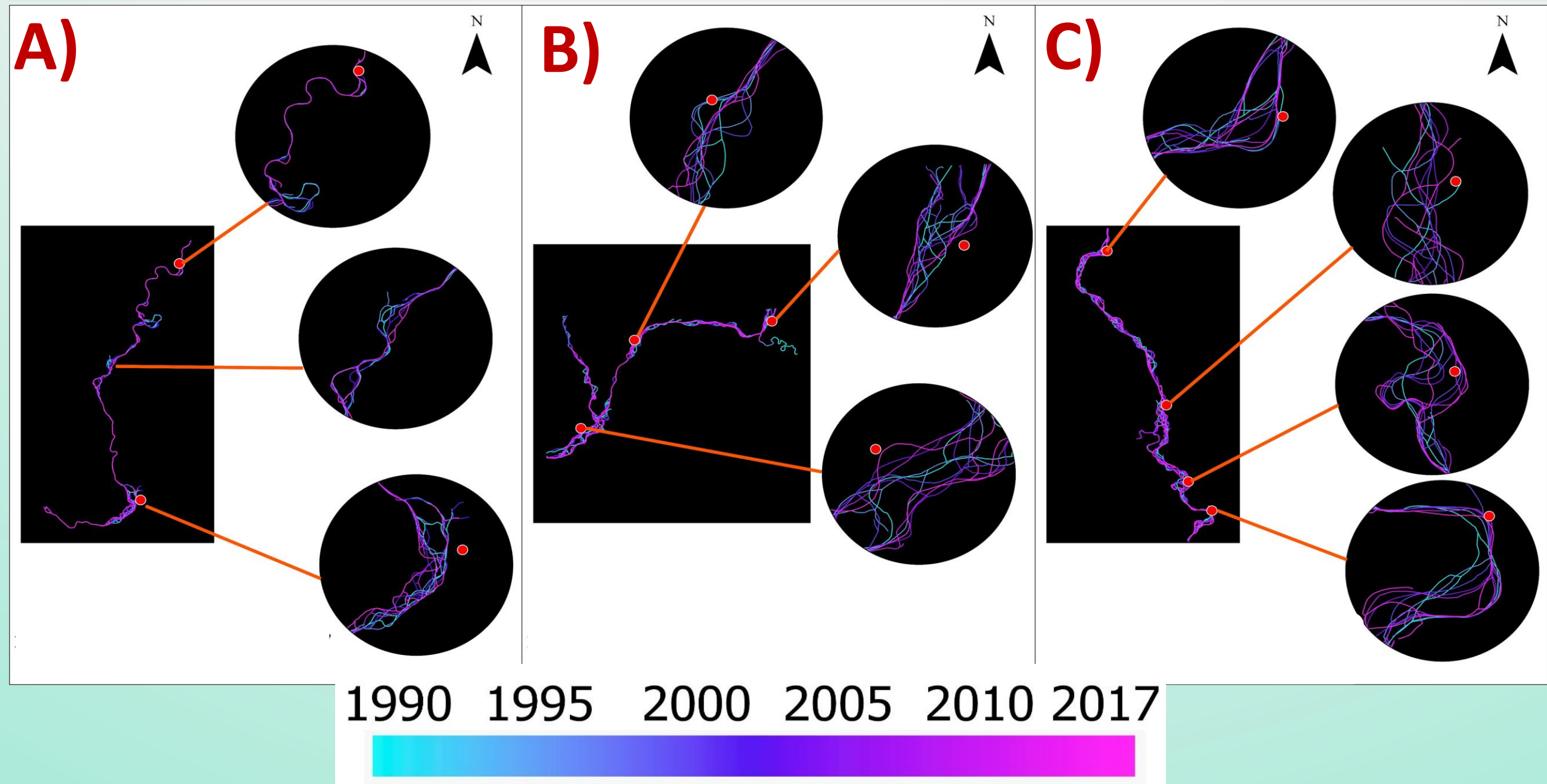


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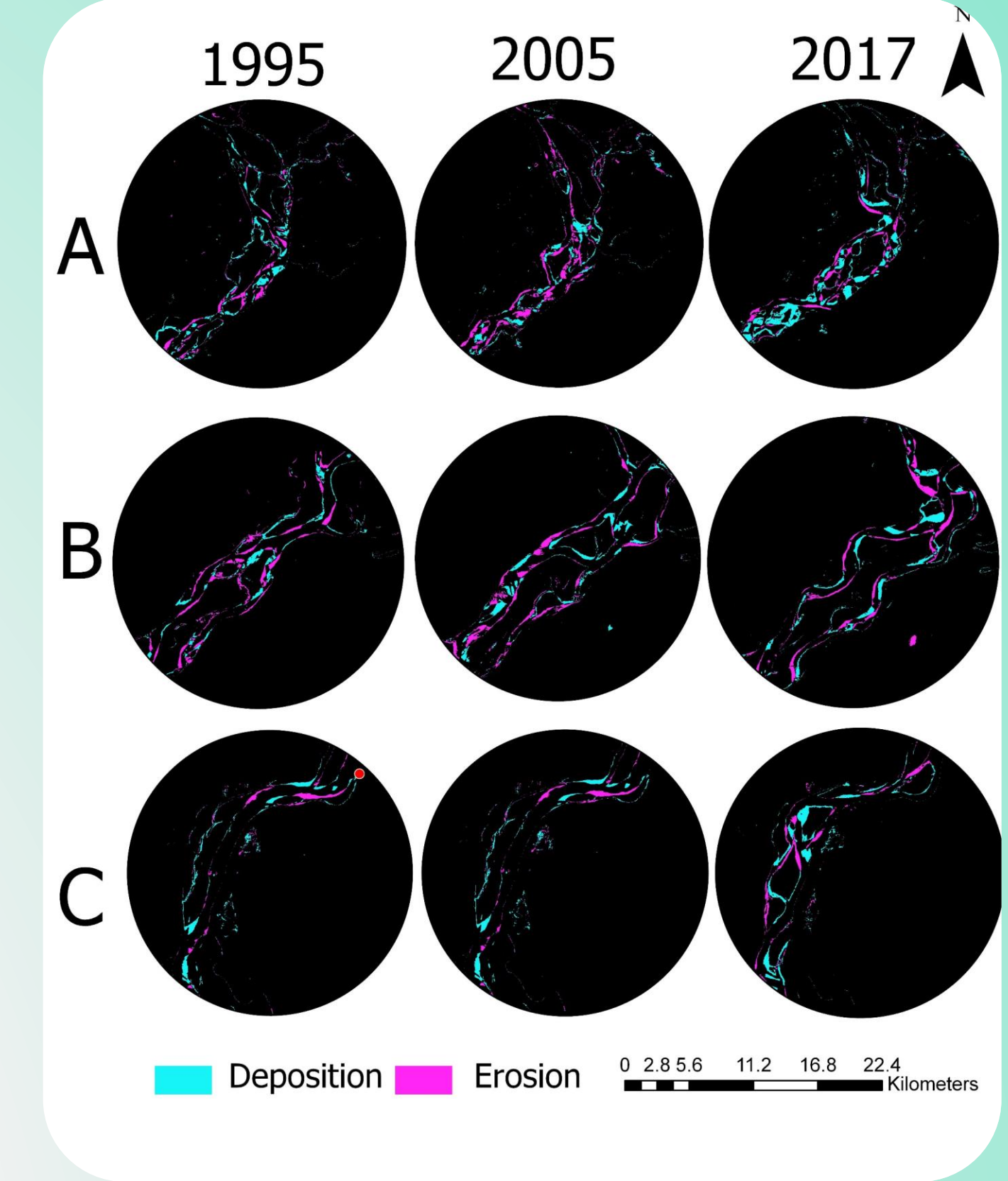
RIVMORPH SERVICE FOR MYANMAR



ANNUAL STREAM CENTERLINE CHANGES : 1990 TO 2017

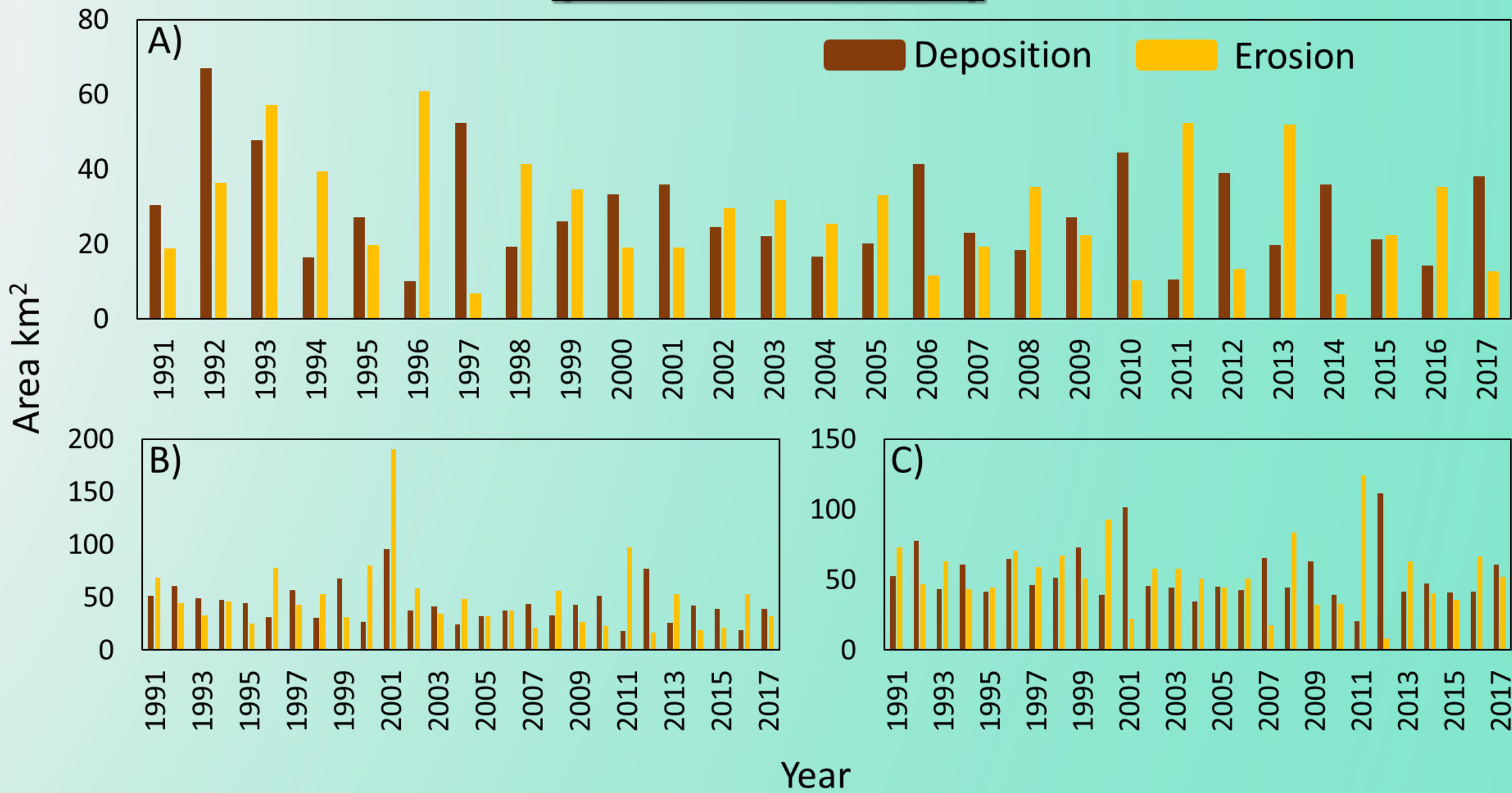


MAPPED EROSION AND DEPOSITION AREA – SELECTED YEARS



- ▶ Directorate of Water Resources and Improvement of River Systems (DWIR) recommended reaches (A, B and C) based on investments and risk posed by morphology change were subjected to detailed assessment.
- ▶ Rapid change in the morphology of Upper Ayeyarwady compared to Chindwin river- Two main tributaries of Lower Ayeyarwady
- ▶ Planform changes threatened villages located along the bank of the river.
- ▶ The monitoring system will red flag villages at risk based on comparison of mapped water/ land area pre and post monsoon.

ANNUAL EROSION AND DEPOSITION AREA (1990 TO 2017)



Summary and Way forward

- ▶ First assessment of basin scale river morphological changes in Ayeyarwady
- ▶ Long term historical assessment for identifying hotspots completed
- ▶ Currently developed in close collaboration with DWIR, Myanmar (end user) for operational use based on Pre and post monsoon images.
- ▶ Identifying key morphological parameters needed by the end user to be included in the historical assessment and operational use
- ▶ A web-interface will serve as a front end for the GEE based tool